

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
10 February 2005 (10.02.2005)

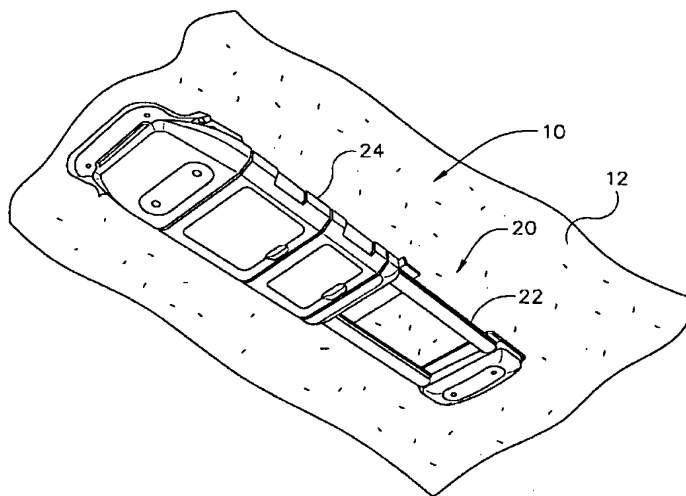
PCT

(10) International Publication Number  
**WO 2005/012039 A2**

- (51) International Patent Classification<sup>7</sup>: **B60R 11/00** (74) Agent: LAZARUS, John, M.; FOLEY & LARDNER LLP, 777 East Wisconsin Avenue, Suite 3800, Milwaukee, Wisconsin 53202-5306 (US).
- (21) International Application Number: PCT/US2004/023388
- (22) International Filing Date: 20 July 2004 (20.07.2004) (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/491,339 30 July 2003 (30.07.2003) US
- (71) Applicant (for all designated States except US): JOHN-SON CONTROLS TECHNOLOGY COMPANY [US/US]; 650 Waverly, Holland, MI 49423 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KALIS, Matthew, A. [US/US]; 3703 Black Creek Drive, Hudsonville, MI 49426 (US). KADZBAN, Mark, P. [US/US]; 304 Maier Court, Grandville, MI 49418 (US). ANDERSON, Kermit [US/US]; 290 Sandy Court, Holland, MI 49424 (US). JONES, Bryan, T. [US/US]; 1361 Spinnaker Court, Holland, MI 49424 (US).
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: POSITIONING SYSTEM FOR MODULES IN A VEHICLE



(57) Abstract: A positioning system for coupling a module to a rail member on an interior portion of a vehicle is disclosed and includes a rail with a flange member having positioning openings. The module includes at least one projection configured to engage the openings when the module is attached to the rail system so that movement of the module in a direction parallel to the rail system is substantially prevented. A positioning system is also disclosed for limiting movement of a module attached to a rail system within a vehicle interior during changes in vehicle speed or direction. The module includes at least one brake member coupled to the module and configured to coast with a rail so that movement of the module relative to the rail causes the brake member to frictionally engage the rail to substantially limit movement of the module along the rail.



WO 2005/012039 A2